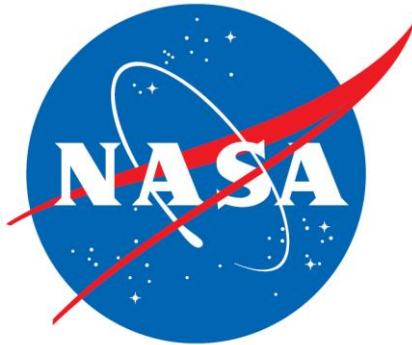

REQUEST FOR PROPOSALS

A Solicitation to Establish Two New Science, Engineering, Mathematics and Aerospace Academy (SEMAA) Sites

RFP No. NNC07CB33C



John H. Glenn Research Center



SEMAA | A National Leader in
K-12 STEM Education

REQUEST FOR PROPOSAL FOR COMPETITION FOR NEW SEMAA SITES

July 25, 2010

The NASA SEMAA Project (Science, Engineering, Mathematics, Aerospace Academy) is an innovative K-12 educational endeavor that derived from the intention of capturing the interest of underserved and underrepresented youth specifically in the area of STEM (Science, Technology, Engineering, Mathematics). Established as a joint venture, between NASA Glenn Research Center and Cuyahoga Community College, the college has grown from a single site to a national organization that is supported by Congress and dedicated to improving the academic success of children nationwide.

The NASA SEMAA Project currently boasts fifteen sites in 14 states and the District of Columbia. The sites include; Community Colleges, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), elementary and secondary schools, and science centers/museums in urban and rural communities throughout the United States.

Under this RFP, NASA has authorized Paragon TEC, Inc., to seek partners for two additional SEMAA sites. While the SEMAA Project may have elements that are unique to each site, the implementation requires adherence to the well-established guidelines that embody the intent and purpose of SEMAA. Invariably, our intention as it relates specifically to the RFP is to replicate the components of SEMAA at two new locations by establishing collaborative partnerships with eligible institutions.

Factors that will be critical to the selection process will include the ability to recruit and retain students from the targeted population, establish and maintain strong community partnerships and the ability to sustain the project beyond NASA funding.

The attached document includes further details relevant to this project. Your interest in participating in NASA's SEMAA project is appreciated.

Darlene Walker
SEMAA Project Manager
Educational Programs Office
NASA Glenn Research Center

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REQUEST FOR PROPOSAL FOR COMPETITION FOR NEW SEMAA SITES

I. INTRODUCTION

NASA has given Paragon TEC, Inc. (Paragon) authority to solicit partners from institutions to expand the SEMAA project to sites in additional school districts. Therefore, we are seeking to replicate the SEMAA Project. The purpose of SEMAA is to encourage K-12th grade students, particularly the underserved and underrepresented, to develop an enthusiastic interest in science, technology, engineering, and mathematics (STEM). In order to accomplish this goal, it is imperative that communities come together to establish partnerships. These partnerships provide the support and skills to impact students in many positive ways thus ultimately contributing to the pool of talented scientists and researchers in STEM related fields. The sites selected under this RFP will be expected to fully cooperate with the National SEMAA Office (NSO).

Under the direction of NASA, Paragon maintains continuity with current SEMAA project sites by coordinating meetings among site representatives. The SEMAA activities are not intended to replace STEM instruction in schools, but to provide support to schools by offering enrichment activities to encourage student interest and success in science, technology, engineering and mathematics. By design, each site shall implement an academic program that will serve three distinct groups of students within the scope of each academic school year. The academic program is divided into three sessions: fall, winter and spring. Further, the site will host four consecutive one week summer sessions.

During any given academic session, each site will host Saturday classes per the following criteria; grades k-2 will meet at least 5 times and grades 3-12 will meet at least 8 times in order to fulfill the NASA SEMAA Project minimum requirement of participation. Classes will be scheduled in increments of at least three hours and during each session, students will learn about STEM related content using a set of Curriculum Enhancement Activities (CEAs) based on NASA-related themes.

An integral part of the SEMAA project is the Aerospace Education Laboratory (AEL). The AEL is a state-of-the-art classroom with 10 workstations. As a part of the award, NASA will install the workstations at a site designated by the awardees. There are three scenarios that participants can complete in an AEL. The aeronautics scenario involves the students in completing a virtual cross-country flight using NASA aeronautics as a theme. The second scenario explores the fascinating topic of microgravity. A third scenario entails six Mars Robotics missions. A room with at least 900 square feet is needed to house the AEL and NASA will provide the curriculum and training for the AEL staff.

II. PROJECT OVERVIEW

SEMAA is an innovative, national project designed to increase the participation and retention of historically underserved and underrepresented K-12 youth in the areas of Science, Technology, Engineering, and Mathematics (STEM).

Goals

- a) Inspire a more diverse student population to pursue careers in STEM-related fields
- b) Engage students, parents/adult family members and teachers by incorporating emerging technologies.
- c) Educate students utilizing rigorous STEM curricula infused with NASA.

Core Components

- a) Hands-On, Inquiry Based K-12 STEM Curricula
 - Aligned to National Math, Science, and Technology Standards
 - Encompasses the research and technology of NASA's four Mission Directorates
 - Provides NASA SEMAA graduates with up to 441 hours of advanced studies in STEM, prior to enrollment in a post-secondary institution
- b) Aerospace Education Laboratory (AEL)
 - Places cutting-edge technology at the fingertips of NASA SEMAA middle and high school students
 - Engages students in real world challenges relative to both an aeronautics and reduced gravity research scenario
 - Houses real aerospace hardware/software including an Advanced Flight Simulator (AFS); a laboratory-grade research wind tunnel; and a working, short-wave receiver and hand-held Global Positioning System (GPS) for aviation
- c) Family Café
 - Promotes sustained family involvement at NASA SEMAA sites nationwide
 - Provides parents/caregivers with relevant parenting and STEM education information
Researches and presents information to parents/caregivers on other STEM related programs available for their child's

participation, in an effort to maximize student exposure and interest in STEM.

Outcomes

- Increasing K-12 student exposure and interest in STEM
- Strengthening the National STEM Pipeline
- Increasing Family Involvement
- Ensuring Project Growth through Innovation
- Building Project Sustainability

III. AWARD SIZE AND DURATION

The SEMAA awards shall be used to establish new SEMAA sites at a Historically Black College and University (HBCU), Hispanic-Serving Institution (HSI), Tribal College and University and Other Minority Universities (OMU). Each award will consist of an annual performance-based contract of \$125,000 per year for a maximum of three years pending available funds from NASA. \$100,000 shall be used each year for SEMAA operations and the remaining \$25,000 shall be used to operate the Aerospace Education Laboratory. Each award also includes an Aerospace Education Laboratory that is valued at \$220,000. SEMAA annual operating cost should not exceed \$200 per student.

All awards will be made based on merit reviews. Continuation of funding for the 2nd and 3rd year is predicated on documented progress reported annually to the National SEMAA Office (NSO), a commitment of increased funding from the awardees' collaborative partners and the availability of funds. Failure to make adequate progress in any one year will result in termination of the contract and continuation funding will not be provided. Further, continuation funding may be reduced if cost reporting indicates a significant level of unexpended funding. Funding beyond the first year is dependent upon NASA funding being approved by Congress in their annual appropriation.

IV. ELIGIBILITY REQUIREMENTS

Eligible universities may submit only one proposal in response to this project announcement. All proposals must originate from U.S. colleges and universities that meet the following criteria.

A. Proposing Institutions:

1. Must be an accredited two or four year minority college or university with enrollment of a single underrepresented minority group or the combination of underrepresented minority groups that exceeds 50 percent of the total

student enrollment as defined in the Higher Education Act as amended (see 20 USC 1135d and 34 CFR 637.4b); and/or;

2. Must be a Hispanic-Serving Institution under Title III of the *Higher Education Act of 1965*, as amended [See 20 USC 1059 ©; Public Law 102-325, Section 306, July 22, 1992); and/or
3. Must be a Historically Black College or University under Title III of the *Higher Education Act of 1965*, as amended (see 34 CFR 608.2); and/or
4. Tribal Colleges and Universities must be cited in Section 532 of the Equity in Educational Land Grant Status October of 1994; Tribally Controlled Community College Assistance Act of 1978; or the Navajo Community College Assistance Act of 1978, Public Law 95-471; and
5. Must have a commitment to provide dedicated classroom and office space to host the NASA SEMAA project AND at least 900 square feet of space to establish an AEL in accordance with the AEL Guidelines in Appendix D
6. Must establish an advisory board that will promote, advocate, and seek additional funding to ensure that the SEMAA project continues after NASA funding has expired
7. Must be able to implement and adhere to the SEMAA Advanced Payment Procedure. The goal of the Advanced Payment Procedure is to ensure that each site has funds to operate prior to the start of each quarter. Awardees must be able to receive, expend and account for each expenditure within the designated quarter. The NSO will Advance Payment to the awardee 30 days prior to the beginning of each quarter. The awardee will submit a Quarterly Progress Report and a Quarterly Budget/Expense Report to the NSO by the designated due date each quarter. These reports will be forwarded to NASA for review
8. Must not currently have a SEMAA project
9. Existing stand-alone AEL sites without a SEMAA project may apply for a SEMAA project but will not receive another AEL

School districts and non-profit educational organizations serving students who are underserved and underrepresented in STEM are encouraged to partner with eligible minority institutions that meet the criteria of Eligibility Requirements 1-4 (pp. 5-6).

B. Target Population:

As indicated previously, SEMAA is an innovative, national project designed to increase the participation and retention of historically underserved and

underrepresented K-12 youth in the areas of Science, Technology, Engineering, and Mathematics (STEM). Please be advised that while the project is open to all equally qualified candidates, the NASA Glenn Research Center who manages this project is very interested in recruiting applicants who belong to a recognized underrepresented group, which includes females, African-Americans, Hispanics, Native Americans, Pacific Islanders (natives of the Philippines, Guam, American Samoa or Micronesia) and students with a disability.

C. SEMAA Administration

The SEMAA site director must be a U.S. citizen and have extensive, demonstrated experience in administering educational projects to the underrepresented. The SEMAA director must devote at least fifty percent (50%) of his/her time to the project. All staff members should be included in the budget submission.

V. PROJECT DESIGN AND CONTENT

The project should be organized to meet unique needs of the local community and should be linked to area private sector business and industries involved in STEM. An emphasis is placed on projects that involve a strong partnership with the community.

The proposed design must use the approved SEMAA Curriculum Enhancement Activities (CEAs) as written. The SEMAA CEAs may be supplemented with other NASA educational content materials and/or Extended Learning Activities. Awardees will be expected to augment the SEMAA CEAs with opportunities for career exploration and counseling and include enrichment activities, such as field trips, guest speakers, interaction and/or mentoring with STEM professionals, near-peer support groups for mentoring and tutoring, math and science fairs, STEM competitions, and engineering design challenges. Additionally, the proposed SEMAA project design must involve parents and include activities that strengthen family support of STEM education.

A site with at least 900 square feet of space needs to be selected to house the AEL. The AEL consists of ten (10) computer workstations that will be provided and installed by the NSO.

All equipment and furniture (e.g., workstations, desktop and laptop computers, microscopes and telescopes, etc..) is the property of the NASA Glenn Research Center and should not be used for any other activities or projects that are not related to SEMAA; however, in cases where agreements exist between the institution and the SEMAA Director, the AEL may be used for community organizations, college courses, teacher in-services and field trips.

The following website provides additional information on the NASA SEMAA project and each of its core components: <http://www.nasa.gov/education/semaa>.

VI. PROPOSAL REQUIREMENTS AND EVALUATION CRITERIA

A. Proposal Guidelines:

Proposal requirements should be strictly followed. Proposals are to be typed, double spaced, using standard-sized paper (8.5x11 inches), one-inch margins (top, bottom, left and right), and 12-point font. Proposals must not exceed 30 pages total. Do not attach appendices other than those required by this announcement; extraneous appendices will not be accepted. If the total pages exceed 30; only the first thirty (30) pages will be evaluated.

B. Evaluation Criteria

Proposals must contain each of the items listed below in the order indicated. The proposal will be evaluated using the following criteria:

1. *Proposal Title Page, Table of Contents and Executive Summary* – Completion of the required title page provided in Appendix A and provides a table of contents. *(Represents 5% of the competition criteria)*
2. *Recruitment and Retention Plan* – The offeror's understanding of the unique challenges faced by the target population(s) in the areas of Science, Technology, Engineering, and Mathematics (STEM). The proposal will also discuss the offeror's ability to attract and retain students from target populations; give selection criteria and procedures; provide demographic profile of the school system or community being served. *(Represents 15% of the competition criteria)*.
3. *Advance Payment* – The proposal must address the site ability to implement and adhere to the SEMAA Advanced Payment Procedure including how the offeror will be able to receive, expend and account for each expenditure within the designated quarter. *(Represents 15% of the competition criteria)*.
4. *Partnership and Sustainability Plan* – The proposal must address two components: partnership and sustainability. Specifically; the establishment of partner relationships with local schools, school districts, local businesses, industries and community groups and a project sustainability plan that addresses operation of the project beyond NASA funding. *(Represents 15% of the competition criteria)*

5. *Organizational Structure* – The proposal must clearly identify key personnel and detail the roles and responsibilities of i.e., Family Café Coordinator, AEL Coordinator). Biographic information detailing relevant experience and expertise for the key leadership of the SEMAA Project will also be included. The proposal will clearly state the percentage of time they will devote to the planning, implementation and evaluation of the SEMAA project. The proposal must include an organizational chart that identifies where the SEMAA Project resides within the institution and must clearly indicate how local issues and concerns will be addressed and resolved at the institutional level (*Represents 15% of the competition criteria*).
6. *Tracking Methodology* – The proposal must address the offeror's ability to longitudinally track student participation. (*Represents 15% of the competition criteria*).
7. *Project Enhancements* - Consideration will be given to outreach efforts as well as the leveraging of other projects and services that can be provided to the target population(s). (*Represents 10% of the competition criteria*).
8. *Annual Budget* – The SEMAA Site must use the budget template provided by the National SEMAA Office (NSO). The proposal should address the distribution of funds amongst the following items: Personnel; Staff Benefits; Consultants/Honorarium; Advertising; Printing & Binding; Business; Meeting Expenses; Material & Supplies; Postage; Telephone; Travel; Training; In-Kind Support. (*Represents 10% of the competition criteria*).

Special Note: The NASA Contract Officer Technical Representative (COTR) must provide final approval regarding the awardees adherence to Eligibility Requirements, Section IV.

VII. PROPOSAL QUESTIONS

Questions about the RFP may be submitted to Paragon TEC via e-mail to: paragon@paragon-tec.com or by Facsimile at 216-361-9595, Attention Jan Costaras by 4:00 pm (Eastern) on August 10, 2010. Questions will not be accepted after this deadline. Paragon will post all questions and answers on the SEMAA web site by 4:00 pm (Eastern) on August 13, 2010.

VIII. PROPOSAL SUBMISSION

A marked original and 6 copies of the proposal package must be received at NASA National SEMAA Office (NSO) no later than 4:00 p.m. (Eastern) on September 3, 2010. Proposals submitted via commercial delivery, or sent through

the U.S. Postal Service by first class, registered or certified mail should be addressed as:

Paragon TEC, Inc.
Attention: National SEMAA Office
3740 Carnegie Avenue, Suite 302
Cleveland, Ohio 44115-2756

IX. PROPOSAL REVIEW AND SELECTION

Proposals will be evaluated on the basis of a merit review that may include ad hoc mail reviews, panel reviews by recognized academic and scientific experts and internal NASA personnel, as appropriate. Although external reviewers will be broadly representative of the various types of eligible organizations, proposers are expected to provide sufficient detail. Paragon has no obligation to evaluate proposals that do not meet all stated requirements.

Paragon will assign the following ratings for use by the reviewer in evaluating each of the four criteria:

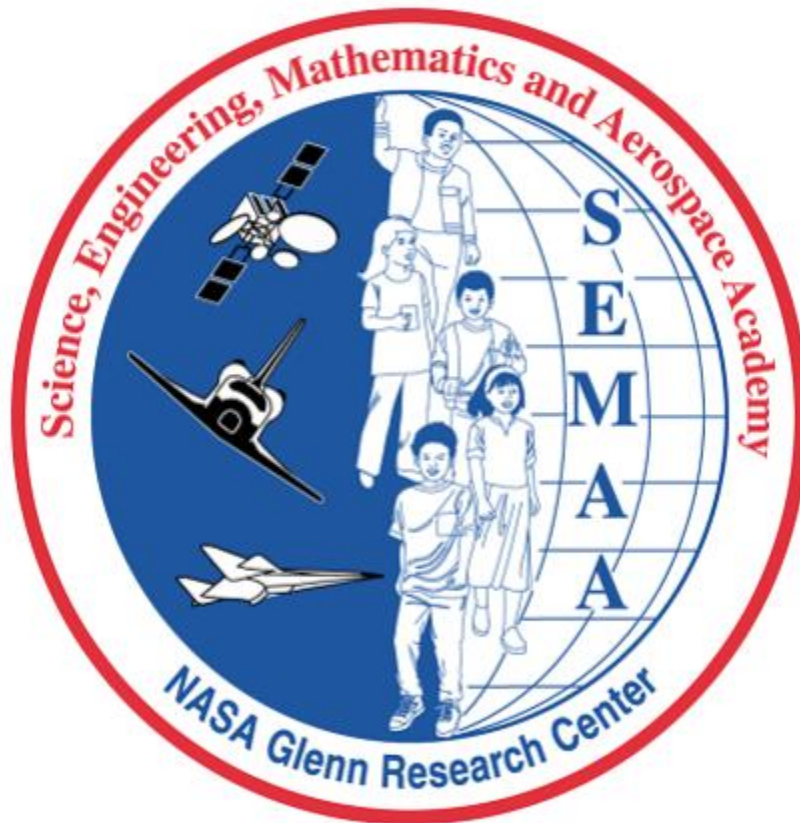
RATING	DEFINITION	PERCENTILE
Excellent	A comprehensive and thorough proposal of exceptional merit with numerous strengths and no major weaknesses.	90% - 100%
Good	A proposal that demonstrates overall competence and is worthy of support. However, the proposal has a few minor correctable weaknesses.	80% - 89%
Fair	Proposals with strengths and weaknesses approximately equal. However, as a whole, weaknesses are not offset by strengths	70% -79%
Poor	Proposals with serious deficiencies and should not be supported. There are numerous weaknesses and a few strengths.	69% or LESS

X. TERMS AND CONDITIONS

1. With NASA's approval, Paragon reserves the right to alter, amend, or modify any provisions of this RFP, or to withdraw this RFP, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of Paragon TEC to do so.
2. Paragon TEC reserves the right to reject any or all proposals received prior to contract award.

3. Institution agrees to accept all responsibilities identified in this RFP and to comply with NASA award terms and conditions if an award is made as a result of this proposal.
4. Paragon TEC is not liable for any costs incurred by institutions prior to entering into a formal contract. Costs of developing the proposals or any other such expenses incurred by the institution in responding to the RFP, are entirely the responsibility of the institution, and shall not be reimbursed in any manner by Paragon TEC.
5. Any award is contingent upon successful negotiation of all contract terms.
6. No announcement concerning the award of a contract as a result of this RFP can be made without the prior written approval of NASA
7. Execution of Appendix A of this RFP shall constitute an agreement to all terms and conditions specified in the RFP.
8. Failure to make adequate progress in anyone year will result in termination of the contract and continuation funding will not be provided.
9. Continuation of funding may be reduced if cost reporting indicates a significant level of unexpended funding
10. Funding beyond the first year is dependent upon NASA's reward being approved by Congress in our annual appropriation.

Required Forms



- Appendix A: Proposal Cover Page
- Appendix B: Proposed Annual SEMAA Budget Template
- Appendix C: Required Institution Information

APPENDIX A – SEMAA PROPOSAL COVER PAGE

This Box for Paragon TEC Use Only

Proposal No. _____ Date: _____

Contract Award No. _____ Received: _____

Name of Submitting Institution: _____

Proposal Title: _____

Certificate of Compliance

By submitting the proposal identified in this *Cover Sheet/Proposal Summary* in response to NNC07CB33C , the Authorizing Official of the proposing institution (or the individual proposer if there is no proposing institution) as identified below:

- Certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
- Agrees to accept the obligations to comply with Paragon TEC contract award terms and conditions if an award is made as a result of this proposal.

Prepared by – Name

Title

Department

Mailing Address

Telephone Number

Fax Number

e-mail Address

Signature

Date

Authorized Institutional Official – Name

Title

Department

Mailing Address

Telephone Number

Fax Number

e-mail Address

Signature

Date

APPENDIX B – PROPOSED ANNUAL SEMAA BUDGET

SUBMITTING INSTITUTION: _____

Instructions – In the budget template below, please indicate how your proposal shall address the distribution of funds amongst each of the approved items. (Special note – NASA procurement regulations do not allow for indirect costs of subcontractors to be charge to the SEMAA award. The new SEMAA site will be a subcontractor to the National SEMAA Office which is managed by Paragon TEC, Inc., which has the prime SEMAA contract with NASA).

SEMAA OPERATIONS	YEAR 1	YEAR 2	YEAR 3	TOTAL
AEL Operations				
Personnel				
Fringe Benefits				
Classroom Instruction				
Consultant/Honoraria				
Travel/Business Meeting Expense				
Materials & Supplies				
Equipment				
Postage				
Printing				
Telephone				
Training				
Special Events & Programs				
TOTAL				

APPENDIX C – REQUIRED INSTITUTIONAL INFORMATION

Proposers must provide an Institutional Profile that includes the following information:

- Institution name and mailing address;
- Location of the office servicing SEMAA;
- Number of employees [assigned to the project];
- Locations from which employees will be assigned;
- Name, telephone number and e-mail address of the institution's point of contact (POC) for a contract award resulting from this RFP;
- Institution's background/history and rationale explaining why the institution is qualified to provide the services described in this RFP; and
- Resumes for key staff that will be responsible for the performance of any contract resulting from this RFP.